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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,627	11/10/2003	Wen San Chou	14039 B	4788

36672 7590 04/11/2007
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NEW YORK, NY 10038

EXAMINER

HAMO, PATRICK

ART UNIT	PAPER NUMBER
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3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/705,627

Applicant(s)

CHOU, WEN SAN

Examiner

Patrick Hamo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Action is in response to amendments filed on February 14, 2007.

Drawings

The corrected drawings were received on February 14, 2007. These drawings are acceptable.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chou, 6,095,758 in view of Karassik et al., "Pump Handbook".

Chou discloses a structure for a compact air compressor including a base or securing seat 1 with an opening 10 including a peripheral flange 101, an eccentric weight 20 including a shaft 21 extending therefrom and secured to the base and a pin 24 eccentric relative to the shaft, a cylinder 17 including a piston 30 rotatably coupled to the pin through link 34, a gear 22 attached to weight 20, and a motor 15 secured to the base via screw rods 13 and including a pinion or main gear 16 engaged with gear 22 to rotate the gear and weight relative to the base about shaft 27 (figure 4) and reciprocate the piston rod in the cylinder (column 3, line 66—column 4, line 3), a chamber or receiving recess 2A formed in gear 22 to receive weight 20 and two bars or shoulders extending from gear 22 to form a peripheral casing to secure the weight (column 3, lines 4-7).

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Chou does not disclose a bearing engaged in the opening of the base and retained in the peripheral flange of the base.

However, "Pump Handbook" teaches that bearings were used to keep a rotating shaft in correct alignment with a stationary part (p. 2.149) and that ball bearings "with their high-speed capabilities and low friction" are ideal for small and medium-sized applications (p. 2.150).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chou's invention with a ball bearing to reduce friction on the rotating shaft and keep the shaft in correct alignment with the stationary base (pp.2.149-2.150).

Response to Arguments

Applicant's arguments filed on February 14, 2007 have been fully considered but they are not found persuasive. Applicant points out that the present applicant has developed various kinds of compact air compressors and that prior art compressors failed to provide a base having an opening formed therein for receiving a bearing and having a peripheral flange to define the opening of the base and to solidly retain the bearing in the opening of the base.

However, U.S. Patent No. 6,095,758 to Chou clearly discloses an opening 10 in a base 1 defined by peripheral flange 101. While it is not disclosed that the opening is formed to receive a bearing, the opening does receive a shaft 21, which rotates within and with respect to stationary base 1. Therefore, in view of the teachings of Karassik et al., "Pump Handbook" that a function of bearings is "to keep the shaft or rotor in correct

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alignment with the stationary parts under the action of radial and transverse loads", the rejections as applied in the prior Office Action are upheld and applied to amended claim 1 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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